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SOME STATISTICAL IDEALS.*

BY JOHN KOREN.

Amid the pressure, never more clearly accentuated than now, of problems that reach into the fundamentals of our social and national existence, it may seem rather remote to speak about statistical ideals before an audience of economists and sociologists, containing but a sprinkling of professed statisticians. It would be far-fetched were I to indulge in speculations about the ultimate possibilities of a sublimated application of the statistical method. Some problem peculiar to the science of statistics could properly be discussed, but it might interest only a few. Although being concerned with ideals, I intend to touch upon practical subjects of general importance. Economists, sociologists—all of us—have at least this in common that we require that ground-work for theory as well as for practical endeavor which statistics provide. Gradually a recognition of this, the universal need of fact-bases, is becoming more and more pronounced among us. The statistician welcomes this trend toward finding out the truth about things, instead of fancifully speculating about them, for it marks an approach to the ideals he professes.

The general attitude towards statistics, and one perhaps especially characteristic of this country, is curiously paradoxical. We cry aloud for facts; there is a voracious and indiscriminating appetite for figures, or rather for the nourishment they afford to argument and propaganda; statesmen, teachers, preachers, publicists, and men in the street exemplify it. It is a dyspeptic appetite, if you please, because of the ill-assorted wares upon which it feeds. On the other hand, there is an almost equally common and more or less outspoken distrust of statistics or of the widespread application of the statistical

* Presidential address at the annual meeting of the American Statistical Association, Princeton, N. J., December 28, 1914.

method as a means of obtaining working knowledge. Whether it roots in a lack of appreciation of facts or frequently signifies merely an aversion to the alleged cut-and-dried, tedious processes by which statistics are evolved matters not. There is a common state of mind in this country which is typified by the remarks of a certain Turkish official in a reply to an English seeker after statistical information:

"The thing you ask of me is both difficult and useless. Although I have passed all my days in this place, I have neither counted the houses nor inquired into the number of the inhabitants; and as to what one person loads on his mule and the other stows away in the bottom of his ship, that is no business of mine. But above all, as to the previous history of this city, God only knows the amount of dirt and confusion the infidels may have eaten before the coming of the sword of Islam. It were unprofitable for us to inquire into it. Oh my soul! Oh my lamb! seek not after things which concern thee not! . . . God created the world and shall we liken ourselves to Him in seeking to penetrate into the mysteries of His creation? Shall we say behold this star spinneth around that star, and this other star with a tail goeth and cometh in so many years? Let it go! He from whose hand it came will guide and direct it!" *

One can sympathize with contempt for a useless prying into things that concern us not, which unfortunately marks not a little of so-called social investigation. There is much statistical delving which merits ridicule because it simply denotes a stale industry applied to matters that profit no one, an inability to distinguish between essentials and unessentials, or an unwholesome curiosity about the purely trivial. Yet the prevalent disrespect for that fact presentation which we call statistics has a deeper cause. It is not solely the too frequent neglect of the wise maxim that only persons of good repute should be permitted to officiate as statisticians, which accounts for low standards in valuing statistics. Nor is the trouble only with the inaptitude or unintelligence of the consumers of statistical products.

Perhaps we shall get closer to the truth by asking, Is

* From Sir A. Layard's "Nineveh and Babylon."

there enough conscientious endeavor to cultivate the science of statistics? Let the schools and universities answer. Where can one turn, confident of getting competent training as a statistician? I mean not merely a smattering of theory or cleverness in making diagrams, but a training that fits a man for the difficult task of mass-observations of fact, so that he is equipped to meet demands in positions of high responsibility in public or private service. It were ungracious to probe far and deep for an answer. We can find a sufficient one in the circumstance that as a rule our professional statisticians are self-taught or get their training, which often may be imperfect and one-sided enough, by the aid of others whose only school-master had been experience. In an exceptional office one may have the good fortune to come under the tutelage of a man of broad views and unswerving high aims, and at least imbibe certain statistical ideals. But this is a rare exception.

The uncontrovertible truth is that our universities do not take the lead in this respect which rightfully belongs to them. The stepmotherly treatment generally accorded statistics as a discipline, I need not specify. There are the curricula—you know them better than I—they speak for themselves. Where is the leadership of our schools of learning in actual statistical work? Take by contrast a country which is not precisely popular in the United States at the present time, but which at least is giving abundant evidence of marvellous efficiency. One may venture so far as to say that its efficiency rests in no small part upon training in assembling and interpreting facts. In Germany, it is the Herr Professor and Doctor, himself trained in the schools, who directs statistical activities whether at the head of national undertakings or as the principal of municipal statistical bureaus or in other similar capacity. Of other countries, France, Italy, Austria-Hungary, and many smaller ones, the same is true, if perhaps in a lesser degree. It would be an evasion of the issue to say that our conditions do not afford opportunities of a similar character. The truth is rather that our universities do not provide men to seize the opportunities at hand. At bottom lies the fact that the training is not afforded which fits for leadership. Only the unusual man is capable of attaining it without the

preliminary guidance which might equip those of lesser native talent.

Perhaps one reason, but hardly an adequate excuse, for the neglect of statistics in our learned schools is the difficulty of teaching the subject. Yet it can be done successfully so as to serve the double purpose of training statisticians and preparing others to become discriminating consumers of statistics.

It is an ungrateful task to point out these commonplace grievances; but if we are to speak of ideals it is necessary first to account for some perfectly obvious shortcomings of the present day. The unreasoning attitude many take toward statistical work is all too explicable. The spurious article parading under the name of statistics circulates without let or hindrance. Perhaps later on its lack of genuineness may be revealed, but then the mischief is done. It is not merely a question of hunting down these statistical untruths, an almost hopeless chase, but of their effect upon our habits of thought. Then there is a singular superstition that anyone, no matter how completely lacking in training, and even ordinary aptitude, may be employed in pretentious statistical undertakings. The schools of learning are not guiltless in this respect, nor are the private organizations that profess a certain leadership. Under such circumstances it is hardly becoming to blame severely the appointive powers when they so frequently place men in offices of high responsibility to whom statistics is a meaningless term.

It is not open to dispute that, speaking generally, we have a statistical output which is as lacking in quality as it is truly appalling in quantity; that a multitude of so-called investigations show still-born results; and that other statistical inquiries simply weary the student because they yield nothing worth while and therefore fail to instruct. What wonder that there is more or less articulate protest against the waste of time and effort in statistical work, coupled at times with an emphatic condemnation of efforts to pry into affairs that concern us not! Why wonder at the prevalent skepticism toward statistical statements, although some of those who exemplify it would by no means be deprived of the opportunity for making such statements! And, lastly, what wonder that the profes-

sion of statistics has not quite attained the honorable place in this country which is its right! Much of this may sound trite and elementary but must be reiterated until better conditions emerge.

Here, then, are indicated some of the modest statistical ideals toward which we should strive. The basic requirement is that the schools of learning should do their duty in affording a training that will enable men not only to become students of statistics but to engage in the profession of statistics. The demand for qualified workers grows more and more insistent, while efforts to meet it continue to lag. The urgency of the situation is almost too patent for discussion. Under the tutelage of the universities as well as of statistical offices of recognized standing, the pretentious tribe of incompetents who bring the very name of statistics into disrepute would be supplanted by trained observers of and earnest seekers after facts. We should no longer witness the distressing spectacle of well-meaning but untrained men and women being set at tasks which profit not and spell waste of public and private money. The profession of statistics would attain that dignity and public confidence to which it is entitled. And under the conditions sketched it seems reasonable to expect that the present attitude of the consumer of statistics might be happily modified. He would learn to cultivate an appetite for wholesome things and be saved the ills of a statistical indigestion which now only the wary can escape. Lastly, there would be put at the disposal of men of the learned professions the material that is so necessary in much of their work.

If there is abundant reason in this country to ask forgiveness for statistical shortcomings, there is as ample cause to seek for wisdom and intelligence in order to do much-needed work well. To enumerate all of it would be tedious and a repetition of the fairly obvious. I will, however, venture one suggestion. We must learn to show greater patience in acquiring elementary facts in the wide domain of statistics. This is one of the greatest needs; the refinements can wait. Our proneness to reason and act, through legislation and otherwise, upon insufficient fact bases, to make a fetish of theories without subjecting their value to the simplest test, do not make for intelligent progress, no matter what political or social problem is involved.

Passing by the wide fields of fact which need to be industriously explored, I wish to direct your special attention to the question of organization for statistical efficiency. Without doubt a large part of the existing confusion, and the uncoördinated and often disappointing results of much statistical work are to be sought in defects of organization. I am of course here referring chiefly to official statistical offices, and am not concerned with details but with certain general principles. Let me illustrate by an example. The tremendous statistical machinery operated by the federal government is known to us all. Its growth has been somewhat haphazard; the parts do not all fit; there is duplication of work, unnecessary friction, and waste. In short, it is not the effective engine it should be and can be made. Various reasons may be assigned for this. Statistical offices are sometimes filled with an eye to politics rather than to fitness; proven ability may not lead to promotion or adequate compensation. But far more vital has been the absence of a competent guiding hand in shaping the activities to be set in motion.

The situation demands improvement. And the means? Let us assume that there were created by Congress a Central Statistical Commission composed of the heads of Government departments and bureaus that have important statistical work to do, reinforced by a specified number of men drawn from societies like the American Economic, Sociological, and Statistical Associations, the Actuarial Society, and perhaps other learned organizations, and with other members adequately representing the professions of medicine and law and special branches of learning like biology. Assume also that such a Commission be given adequate advisory powers to deal with all that pertains to statistical organization, planning, and work within the federal government. Ought it not to become a powerful agent for smoothing out defects, raising standards, cultivating the now bare spots in the statistical fields, and thus bring us a little nearer the ideal service?

I offer you no new idea. Suggestions similar in nature have already been brought to the attention of officialdom. And outside of Germany and England there is to my knowledge not a single country without a central statistical commission upon

which uniformly men of the highest distinction and attainment are known to serve.* I cannot find any valid reason for believing that we should fail if the experiment were tried. That anyone among us should refuse the honorable place upon such a commission is unthinkable. But unless the impulse toward its establishment comes from us, we shall expect it in vain.

Hitherto we have as a body largely been content with fault-finding, which has had its uses, no doubt, but of course has lacked constructive force. The stake is too large to permit us any longer to remain outside as passive critics. We have a duty and cannot divest ourselves of responsibility.

The principle of participation in official statistical work, just alluded to, is as applicable to state and municipal activities as to those of the federal government. At least in some states there are men and institutions sufficiently qualified to exercise an advisory leadership in statistical undertakings which too often miss fire for want of it. Just now, for instance, several states are preparing for censuses. Whether their results will measure up to expectations should be our concern from the moment of the first preparation for the work. Here and there are signs of a new feeling of responsibility in these things, but concerted action is still wanting. Has not the time come to organize for it? I address this question chiefly to members of the American Statistical Association, but also to the economists and sociologists.

I am conscious of having taken the unwelcome part of a critic, that I have dwelt on somewhat obvious elementary conditions and needs, perhaps with a tinge of preachment. Probably I shall be forgiven for the sake of those still unattained ideals which we all profess and toward which, I trust, we are slowly moving.

* In Germany, many of the different states possessed competent statistical organizations before the Empire brought them into closer confederation. The Imperial Statistical Office largely supplies the need of a Central Commission. So far as England is concerned one may modestly hold that such a Commission would be useful.